

The 2005 International Conference on Computational & Experimental Engineering and Sciences, ICCES'05, will be held in India, during 1-6 December 2005. There will be a post-conference seminar, in Jaipur, India, during 8-10 December 2005.

The 2005 ICCES conference is set to continue the tradition of fostering interdisciplinary collaboration by bringing together Internationally acclaimed Computational & Experimental Engineers & Scientists with common research interests.

Aims & Scope

At the dawn of this century, which many believe would be the most technologically far-reaching in the history of this planet, the discipline of computer modeling, which lies at the intersection of the bio-info-nano technologies, is poised to bring about revolutionary changes in our lives, in our society, and the world we live in. Computer Modeling will be the core enabling discipline for all technological & scientific advances that are yet to be made in this century. It involves a diverse set of research thrusts, in several focus areas, as for instance:

Focus Disciplines:

- Contemporary Engineering, Physical, Chemical & Biological Sciences;
- Systems Integration through Computations; and
- Advanced Communications and Information Processing Technologies

In each of the above disciplines, the following research thrusts can be identified.

Contemporary Engineering, Physical, Chemical & Biological Sciences:

- Aeroacoustic Impact Reduction for Human Factors
- Bionanotechnology
- Biomechanics
- Boundary Element Methods
- Combustion & Reactive Flows
- Composite Materials: Modeling, Fabrication and Processing
- Computational Biology
- Computational Chemistry
- Computational Electromagnetics
- Computational Penetration Mechanics
- Computational Structural Mechanics and High-performance Computing
- Finite Element Methods
- Prediction of Fatigue Life of Structures
- Finite Rotations in Beam, Plate and Shell Structures
- Flexible Multi Body Dynamics, Space Structures
- Fluid Flow and Heat Transfer
- Fluid Structure Interactions
- Fracture and Damage Mechanics
- Homogenization and Computational Meso/Micro/Damage Mechanics
- Mesh Adaptation and Optimization for Engineering Applications
- Meshless Methods in Modeling
- Meshless Local-Petrov Galerkin (MLPG) Methods
- Molecular and Quantum Computing
- Modeling of Fabrics and Membranes
- Multi-Scale (quantum-nano-micro-meso-macro) Modeling
- Multiphysics & Multibody Dynamics
- Nanomechanics
- Nanotechnology
- Optimization and Inverse Design Engineering

- Simulation of Fracture and Failure in Solids
- Stability and bifurcation
- Turbulence
- Turbomachinery
- Two-Phase Flows

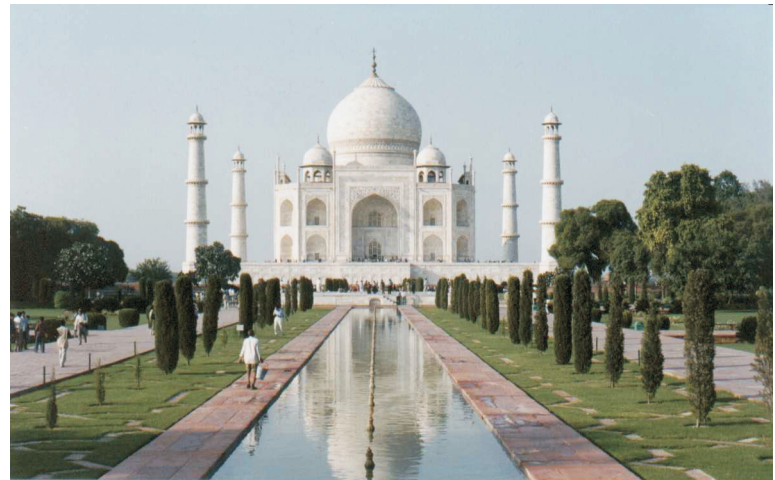
Systems Integration through Computations:

- Computational Education Engineering (real-time simulations in class room instruction)
- Factory of the Future
- Flight Safety & Continued Airworthiness
- Integrated Product and Process Design; Visualization and Virtual Reality
- Life-Cycle Costs
- Life Extension and Aging Infrastructure (Bridges, Aircraft, Railroads, etc)
- Machine Control
- MEMS & Semiconductor Technology
- Minimally Invasive Surgery Thru Computer Modeling
- MEMS & Semiconductor Technology
- Minimally Invasive Surgery Thru Computer Modeling
- Modeling of Smart Structures and Repairs
- Multidisciplinary Design and Optimization
- Navigation, Guidance & Control
- NEMS
- Nonlinear Dynamical Systems & Chaos
- Nonlinear System Control
- Optimal Design of Structures
- Rapid Prototyping & Minutization of Product-to-Market Costs

Advanced Communications and Information Processing Technologies:

- Computational Animation/Entertainment
- Computational Electronic Packaging

- Computational Finance & Market Indicators
- Computational Intelligence and Advanced Information Technologies in Engineering Science
- Computational Mechanics for Electronic Devices/Components
- Data Mining
- Geographically Distributed Real Time Computing
- Informatics
- Large-scale Data Management
- Multi-Media & Entertainment
- Multiscale Simulations: Quantum-Molecular Dynamics-Meso-Macro-Mechanics
- Parallel Computation for Visualization and Virtual Reality
- Real-Time Scientific Visualization
- Sensors & Actuators
- Symbolic Computer Programming in Computational Mechanics Visualization
- Virtual Reality



Taj Mahal



A traditional Bharata Natyam dancer

Honorary Advisory Committee (to be expanded)

Jan D. Achenbach

Professor, Director, Center for Quality Engng & Failure Prevention, Northwestern University U.S.A.

Jim Chang

Director, Army Research Office, U.S.A.

Ralph J. Cicerone

Chancellor, UC, Irvine, U.S.A.

John Hutchinson

Professor, Harvard University, U.S.A.

Luigi Morino

Professor, Universita' Roma Tre, Italy

Anumolu Ramakrishna

President, Indian National Academy of Engineering
President (Operations) & Deputy Managing Director
Larsen & Tourbo Ltd, India

C.N.R. Rao

President, Third World Academy of Sciences
Professor, Jawaharlal Nehru Centre for Adv. Sci. Res. India

Bhakta B. Rath

Associate Director of Research, Naval Research Lab, U.S.A.

Placid Rodriguez

Honorary Secretary, Indian National Academy of Engineering, Delhi, India

K.R. Sreenivasan

Abdus Salam Honorary Professor
Director, Int. Centre for Theoretical Physics
Trieste, Italy

John R Willis

Professor, Centre for Mathematical Sciences
Cambridge, U. K.

Wm. A. Wulf

President, National Academy of Engineering, U.S.A.

Henry T. Yang

Chancellor, UC Santa Barbara, U.S.A.

General Chair

A.M. Rajendran

Chair, ICCES'05, India
Senior Research Scientist

U.S. Army Research Office

P.O. Box: 12211

Research Triangle Park, NC 27709-2211, U.S.A.

Phone: 919-549-4346

Email: raj.rajendran@us.army.mil

International Organizing Committee (to be expanded)

Ferri M.H. Aliabadi

Mile End, London, U. K.

David Allen

University of Nebraska, U.S.A.

Gang Bao

GeTech, U.S.A.

Pinhas Bar-Yoseph

Professor, Technion, Israel

Dimitri E Beskos

University of Patras, Greece

Constantin Bratianu

University Politehnica of Bucharest, Romania

Frederick (Bud) Brust

Battelle Memorial Institute, U.S.A.

Zhang-Zhi Cen

Tsinghua University, China

Wen-Hwa Chen

National Tsing Hua University, R.O.C.

Chyou-Chi Chien

Chung Yuan Christian University, R.O.C.

Jin Yeon Cho

INHA University, Korea

Koichi Hashiguchi

Kyushu University, Japan

Masanori Kikuchi

Tokyo University of Science, Japan

S.W. Lee

University of Maryland, U.S.A.

Kathryn V. Logan

The American Ceramic Society, U.S.A.

Xanthippi Markenscoff

UC San Diego, U.S.A.

Gennadiy Nikishkov

University of Aizu, Japan

Padraic O'Donoghue

National University of Ireland, Ireland

Jan Sladek

Slovak Academy of Sciences, Slovakia

Jurica Soric

University of Zagreb, Croatia

Antonio J.B. Tadeu

FCTUC, Coimbra, Portugal

Yutaka Toi

University of Tokyo, Japan

Yoshihiro Tomita

Kobe University, Japan

Chien-Tung Yang

National Taiwan Ocean University, R.O.C

Zhenhan Yao

Tsinghua University, China

Host Organizing Committee (to be expanded)

Romesh Batra

Virginia Polytechnic Institute and State University, U.S.A.

Kaushik Bhattacharya

California Institute of Technology, U.S.A.

Namas Chandra

FAMU-FSU College of Engineering, U.S.A.

Lalit Chhabildas

Sandia National Laboratories, U.S.A.

Somnath Ghosh

The Ohio State University, U.S.A.

Ramana Grandhi

Wright State University, U.S.A.

Rakesh K. Kapania

Virginia Polytechnic Institute and State University, U.S.A.

Satish V. Kulkarni

Lawrence Livermore National Laboratories, U.S.A.

Raju R. Namburu

Army Research Laboratory, U.S.A.

Vikas Prakash

Case Western Reserve University, U.S.A.

Gangan Prathap

National Aerospace Laboratory, India

Ivatury S. Raju

NASA Langley Research Center, U.S.A.

N. Ramakrishnan

Regional Research Laboratory, India

K. Ravi-Chander

University of Texas at Austin, U.S.A.

G. Ravichandran

California Institute of Technology, U.S.A.

Bhavani V. Sankar

University of Florida, U.S.A.

Arun Shukla

University of Rhode Island, U.S.A.

Raman P. Singh

State University of New York, U.S.A.

Deepak Srivastava

NASA Ames Research Center, U.S.A.

Ghatu Subhash

Michigan Technological University, U.S.A.

Vinod K Tewary

National Institute of Standards and Technology, U.S.A.

Naresh Thadhani

Georgia Institute of Technology, U.S.A.

Priya Vashishta

University of Southern California, U.S.A.

Anthony M. Waas

University of Michigan, U.S.A.

Local Organizing Committee

M. Anandakrishnan

Chairperson, Madras Institute of Development Studies
Chennai, India

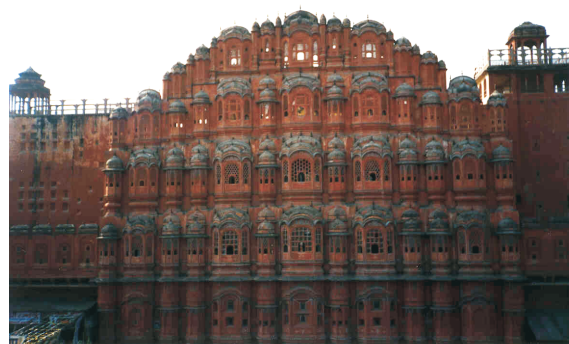
Anumolu Ramakrishna

President, Indian National Academy of Engineering,
President (Operations) & Deputy Managing Director
Larsen & Tourbo Ltd, Chennai, India

ICCES'05 India: for further information, please contact:

Website: <http://www.icces.org>

Email: icces05@icces.org



A Palace in Jaipur